

REMARKS

The claimed invention

The invention includes an in-line expansion tank. As fluid traverses a pipe within the tank, it may pass into and displace a diaphragm disposed outside of the pipe if the fluid pressure is greater than a tank pressure pushing the diaphragm against the pipe. When the fluid pressure decreases, the fluid passes from the diaphragm back into the pipe.

The claims have been amended to describe the progress of water through the tank, especially water that enters the space between the diaphragm and the pipe. The amendments to the claims are supported by the specification at page 7, lines 11-17.

The cited art

Shiery discloses a noise suppressor device for absorbing and dampening the noise of pulsating fluids (Abstract). Forster also discloses a pulsation dampener device.

Rejections under 35 U.S.C. § 102

Claims 9 and 14 stand rejected under 35 U.S.C. 102 in view of Shiery and also in view of Forster. Applicant respectfully submits that both Shiery and Forster fail to disclose a flow through assembly including a tube having two ends and a diaphragm, wherein substantially all of a first portion of water entering a space between the diaphragm and the tube leaves the tank before a substantial amount of a second portion of water entering the space between the diaphragm and the tube after the first portion of water enters the space leaves the tank, as recited in claim 9. This prevents water from stagnating in the tank, as described at page 7, lines 11-17. This is not disclosed or suggested by Shiery or Forster, which disclose pulsation dampeners in which the stagnation of water or other fluids is not a concern. Claim 14 depends from claim 9. As a result, Applicant submits that claims 9 and 14 are patentable in view of Shiery and Forster, whether considered separately or together.

Rejections under 35 U.S.C. § 103

Claims 1-8, 10-13, 16-29, and 31 stand rejected under 35 U.S.C. 103 in view of Forster. Applicant submits that Forster fails to disclose or suggest a diaphragm tank having a central tube, wherein substantially all of a first portion of water entering a space between the diaphragm and

the tube leaves the tank before a substantial amount of a second portion of water entering the space between the diaphragm and the tube after the first portion of water enters the space leaves the tank, as recited in claims 1 and 27. Applicant further submits that Forster fails to disclose a diaphragm tank having a flow-through assembly, wherein substantially all of a first portion of water entering a space between the diaphragm and the flow-through assembly leaves the tank before a substantial amount of a second portion of water entering the space between the diaphragm and the flow-through assembly after the first portion of water enters the space leaves the tank. Rather, Forster discloses a pulsation dampener. Forster neither discloses nor suggests that the disclosed device would benefit from the circulation mechanism recited in the claims or that it would be desirable to prevent any fluid from remaining resident in the tank. The recited circulation of water prevents water from stagnating in the tank, as described at page 7, lines 11-17. Applicant submits that claims 1-8, 10-13, 15-19, and 31 are patentable in view of Forster.

A Request for Continued Examination is enclosed herewith. Please charge any fees associated with this filing, or apply any credits, to our Deposit Account No. 03-1721.

Respectfully submitted,



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Date: September 28, 2005

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